

Changing diet and physical activity behaviour in nurses using Intervention Mapping: Study protocol

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Introduction: Nursing is a stressful occupation, in which overtime and irregular shifts are common, and challenge the maintenance of a healthy lifestyle. In fact, with 60% of nurses being overweight or obese, and 55% being classified as insufficiently active, the risk for non-communicable diseases (NCD) is increased in this group. Because staff shortage and high turn-over are a common and currently issue in this workforce, improving nurses' health could play an important role for job retention. So far, there is a lack in number and quality of studies promoting healthy lifestyles in this population.

Objectives: To design a tailored intervention to promote healthy diet and PA behaviour in nurses

Method / Design: Following the Intervention Mapping (IM) protocol, an initial Needs Assessment was performed combining literature review and focus groups (FG) data, to explore barriers to healthy diet and PA experienced by nurses. Selection of intervention strategies and behavioural change theoretical frameworks, were selected based on the needs assessment data and desirable outcomes. Intervention materials were developed using both an evidence-based approach and suggestions from FG participants.

Results: The intervention will be implemented and evaluated in a 12-week pre-post-test study with n=50 nurses working full-time. Efficacy and uptake will be evaluated using the primary outcomes physical activity (including sedentary behaviour), and improved diet quality. Secondary outcomes will include changes in NCDs risk factors like BMI, blood pressure, and waist circumference.

Conclusions: The use of a tailored intervention, developed in collaboration with future participants, has the potential to ensure participation, flexibility and sustainability in this hard-to-reach group. The adoption and maintenance of a healthy diet and PA, can improve nurses' long-term health, hence potentially improving job retention. Limiting turn-over can contribute to overcome the current nursing shortage, which is predicted to increase in the next years.

Keywords: (maximum 5): diet, physical activity, nurses, health, promotion